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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,116	03/28/2001	Reinette Grobler	1-11-33	2320

7590 08/06/2004

Docket Administrator(Room 3C-512)
Lucent Technologies Inc.
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EXAMINER

ZHONG, CHAD

ART UNIT PAPER NUMBER

2152

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,116

Applicant(s)

GROBLER ET AL.

Examiner

Chad Zhong

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-32 are presented for examination.
2. It is noted that although the present application does contain line numbers in specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the Examiner and Applicant all future correspondence should include the recommended line numbering.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7-15, 17-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickham, US 6,370,154 in view of Zimmermann, US 6,094,582.
5. As per claim 1, Wickham teaches a method for making a data call from a host to a destination over a network, comprising the steps of:

responsive to said setup message, determining at said switch if a channel is available from a plurality of channels and when said channel is available for making said data call from said host to said destination (Col. 21, lines 5-25; Col. 22, lines 10-25);

responsive to said channel being available, said switch sending a success message to said host identifying said available channel and a start time for making said data call (Col. 21, lines 5-25; Col. 22, lines 10-25; Col. 13, lines 25-30);

6. Wickham does not explicitly teaches:

sending a setup message including a holding time of said data call from the host to a switch connected to said network;

responsive to receiving said success message, said host making said data call to said destination via said available channel at said starting time.

7. Zimmermann teaches

sending a setup message including a holding time of said data call from the host to a switch connected to said network (Col. 14, lines 35-55; Col. 13, lines 43-50);

responsive to receiving said success message, said host making said data call to said destination via said available channel at said starting time (Col. 13, lines 3-6).

8. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Wickham and Zimmermann because they both dealing with searching for optimum paths in a network. Furthermore, the teaching of Zimmermann to allow

sending a setup message including a holding time of said data call from the host to a switch connected to said network;

responsive to receiving said success message, said host making said data call to said destination via said available channel at said starting time.

would allow Wickham's system be implemented in a decentralized fashion.

9. As per claim 2, Wickham teaches the method of claim 1 wherein said data call is a call which transfers a file of data of known length (Col. 14, lines 20-26).

10. As per claim 3, Wickham does not teach the method of claim 2 wherein said holding time is equivalent to a time to transfer said file of data of known length at a first rate.

11. Zimmermann teaches the method of claim 2 wherein said holding time is equivalent to a time to transfer said file of data of known length at a first rate (Col. 9, lines 29-58).

12. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Wickham and Zimmermann because they both dealing with searching for optimum paths in a network. Furthermore, the teaching of Zimmermann to allow

the method of claim 2 wherein said holding time is equivalent to a time to transfer said file of data of known length at a first rate

would allow Wickham's system be implemented in a decentralized fashion.

13. As per claim 4, Wickham teaches the method of claim 3 wherein said network said data call is made over includes a SONET portion (Fig 7).

14. As per claim 7, Wickham teaches the method of claim 3 wherein said network said data call is made over includes a virtual circuit ATM portion (Col. 2, lines 15-25).

15. As per claim 8, Wickham teaches a method for making a data call having a holding time from a host to a destination over a network having a plurality of switches, comprising the steps of:

determining from said setup message and local information at said first switch if a channel of a plurality of channels is available through said first switch to a subsequent switch of said plurality of switches and what times each available channel is available to make said data call (Col. 21, lines 5-25; Col. 22, lines 10-25);

sending a subsequent setup message including the available channels and the available times for said channels for said data call to a subsequent switch of said plurality of switches (Col. 21, lines 5-25; Col. 22, lines 10-25);

determining from said subsequent setup message and local information at said subsequent switch if a

channel of a plurality of channels is available through said first switch and said subsequent switch and what times each available channel is available to make said data call (Col. 21, lines 5-25; Col. 22, lines 10-25);

sending another setup message including the available channels and the available times for said channels for said data call of said first and subsequent switches to a terminating switch of said plurality of switches that is connected to said destination (Col. 21, lines 5-25; Col. 22, lines 10-25);

determining from said another setup message and local information at said terminating switch if a channel of a plurality of channels is available through said first and subsequent switches and what times each available channel is available to make said data call (Col. 21, lines 5-25; Col. 22, lines 10-25); and

if a channel is available for said holding time of said data call through all switches between host and destination sending a success message identifying the available channel and the available time to make said data call (Col. 16, lines 1-30, lines 45-55; Col. 17, lines 33-67).

16. Wickham does not explicitly teaches

sending a setup message from the host to a first switch of said plurality of switches of said network requesting a channel to said destination for a data call having said holding time;

17. Zimmermann teaches

sending a setup message from the host to a first switch of said plurality of switches of said network requesting a channel to said destination for a data call having said holding time (Col. 13, lines 41-50; Col. 14, lines 35-55);

18. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Wickham and Zimmermann because they both dealing with searching for optimum paths in a network. Furthermore, the teaching of Zimmermann to allow

sending a setup message from the host to a first switch of said plurality of switches of said network requesting a channel to said destination for a data call having said holding time would allow Wickham's system be implemented in a decentralized fashion.

19. As per claim 9, Wickham teaches the method of claim 8, wherein in response to said success message each switch along the available channel reserves the channel and the time for said data call as determined by said terminating switch (Col. 21, lines 5-25; Col. 22, lines 11-25).

20. As per claim 10, Wickham does not explicitly teaches the method of claim 9, wherein said time for said data call was the earliest possible starting time for a successful data call having said holding time from host to destination.

21. Wickham teaches the method of claim 9, wherein said time for said data call was the earliest possible starting time for a successful data call having said holding time from host to destination (Col. 13, lines 15-20; Col. 14, lines 11-24).

22. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Wickham and Zimmermann because they both dealing with searching for optimum paths in a network. Furthermore, the teaching of Zimmermann to allow

wherein said time for said data call was the earliest possible starting time for a successful data call having said holding time from host to destination would allow Wickham's system be implemented in a decentralized fashion.

23. As per claim 11, Wickham does not explicitly teach the method of claim 9, wherein said host makes said data call on the channel and at the time of the success message.

24. Zimmermann teaches the method of claim 9, wherein said host makes said data call on the

channel and at the time of the success message (Col. 13, lines 3-6).

25. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Wickham and Zimmermann because they both dealing with searching for optimum paths in a network. Furthermore, the teaching of Zimmermann to allow

wherein said host makes said data call on the channel and at the time of the success message would allow Wickham's system be implemented in a decentralized fashion.

26. As per claim 12, Wickham does not explicitly teaches the method of claim 11, wherein said time for said data call was the earliest possible starting time for a successful data call from host to destination.

27. Zimmermann teaches the method of claim 11, wherein said time for said data call was the earliest possible starting time for a successful data call from host to destination (Col. 13, lines 15-20; Col. 14, lines 11-24).

28. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Wickham and Zimmermann because they both dealing with searching for optimum paths in a network. Furthermore, the teaching of Zimmermann to allow

wherein said host makes said data call on the channel and at the time of the success message would allow Wickham's system be implemented in a decentralized fashion.

29. As per claim 13, claim 13 is rejected for the same reasons as rejection to claim 12 above.

30. As per claim 14, Wickham does not explicitly teaches the method of claim 8, wherein said determining steps were made using an F method.

31. Zimmermann teaches the method of claim 8, wherein said determining steps were made using an F method (Col. 15, lines 47-60; Col. 10, lines 10-45).

32. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Wickham and Zimmermann because they both dealing with searching for optimum paths in a network. Furthermore, the teaching of Zimmermann to allow

wherein said determining steps were made using an F method
would allow Wickham's system be implemented in a decentralized fashion.

33. As per claim 15, Wickham teaches the method of claim 8, wherein said determining steps were made using a timeslots method (Col. 21, lines 5-25).

34. As per claim 16, Wickham does not explicitly teach the method of claim 8, wherein said determining steps were made using a kT.sub.wait method.

35. Zimmermann teaches the method of claim 8, wherein said determining steps were made using a kT.sub.wait method (Col. 27, lines 35-67; Col. 28, lines 1-3).

36. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Wickham and Zimmermann because they both dealing with searching for optimum paths in a network. Furthermore, the teaching of Zimmermann to allow

wherein said determining steps were made using a kT.sub.wait method
would allow Wickham's system be implemented in a decentralized fashion.

37. As per claim 17, Wickham teaches the method of claim 8 wherein the subsequent switch and the terminating switch are the same switch (Col. 5, lines 29-32).

38. As per claim 18, claim 18 is rejected for the same reasons as rejection to claim 8 above.

39. As per claim 19, claim 19 is rejected for the same reasons as rejection to claim 17 above.

40. As per claims 20 and 21, claims 20 and 21 are rejected for the same reasons as rejection to combination of claim 1 and 3 above.

41. As per claim 22, claim 22 is rejected for the same reasons as rejection to claim 8 above.

42. As per claim 23, Wickham teaches the method of claim 22, wherein said destination switch determines that said success message has sufficient time to propagate back to the host (Col. 12, lines 5-7, lines 24-32).

43. As per claim 24, claim 24 is rejected for the same reasons as rejection to claim 12 above.

44. As per claim 25, Wickham does not explicitly teach the method of claim 24, wherein said setup requests traverse said network with each subsequent switch determining a value for said earliest possible start time by looking for a largest time period at most equal to a predetermined constant F but at least equal to said holding time.

45. Zimmermann teaches the method of claim 24, wherein said setup requests traverse said network with each subsequent switch determining a value for said earliest possible start time by looking for a largest time period at most equal to a predetermined constant F but at least equal to said holding time (Col. 28, lines 5-45; Col. 13, lines 15-20; Col. 14, lines 11-24)

46. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Wickham and Zimmermann because they both dealing with searching for optimum paths in a network. Furthermore, the teaching of Zimmermann to allow

wherein said setup requests traverse said network with each subsequent switch determining a value for said earliest possible start time by looking for a largest time period at most equal to a predetermined constant F but at least equal to said holding time

would allow Wickham's system be implemented in a decentralized fashion.

47. As per claim 26, Wickham teaches the method of claim 24, wherein if found, said channel is reserved for this file transfer (Col. 22, lines 10-25).

48. As per claim 27, Wickham teaches the method of claim 26, wherein if a channel is not found said transfer is blocked and release procedures for all switches involved are initiated (Col. 15, lines 20-67; Col. 18, lines 40-67).

49. As per claim 28, Wickham does not explicitly teach the method of claim 22, wherein said ingress switch selects a number of time ranges during which a channel is available for said data call.

50. Zimmerman teaches the method of claim 22, wherein said ingress switch selects a number of time ranges during which a channel is available for said data call (Col. 7, lines 50-55).

51. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Wickham and Zimmermann because they both dealing with searching for optimum paths in a network. Furthermore, the teaching of Zimmermann to allow

wherein said ingress switch selects a number of time ranges during which a channel is available for said data call

would allow Wickham's system be implemented in a decentralized fashion.

52. As per claim 29, Wickham teaches the method of claim 22 wherein instead of one subsequent switch there are multiple switches between said ingress switch and said destination switch (Col. 22, lines 10-25).

53. As per claim 30, Wickham teaches the method of claim 22, wherein at each of said switches, said channel is reserved in a staggered relationship such that said channel is reserved only for a time that said

file propagates through (Col. 22, lines 10-25).

54. As per claims 31, Wickham teaches the method of claim 22, wherein initiation of said data call is by a timer (Col. 21, lines 5-25; Col. 22, lines 10-25).

55. As per claim 32, Wickham teaches the method of claim 22, wherein initiation of said data call is by a timer and release of said data call is by a timer (Col. 21, lines 5-25; Col. 22, lines 10-25; Col. 18, lines 40-67; Col 15, lines 20-67; Col. 16, lines 1-30).

56. Claims 5-6, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickham, US 6,370,154 in view of Zimmermann, US 6,094,582, in further view of 'Official Notice'.

57. As per claim 5, Wickham and Zimmermann does not explicitly teach the method of claim 3 wherein said network said data call is made over includes an Internet Protocol portion, "Official Notice" is taken that the concept and advantages of providing for IP communications is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include IP communications capabilities with Wickham and Zimmerman because it would provide for communication across a network.

58. As per claim 6, claim 6 is rejected for the same reasons as rejection to combinations of claims 4 and 5 above.

Conclusion

59. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "Scheduling of calls with known holding time".

Art Unit: 2154


- i. US 5870441 Cotton et al.
- ii. US 2001/0055286 Lin et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (703) 305-0718. The examiner can normally be reached on M-F 7am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on 703-305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CZ
July 1, 2004


ZARNI MAUNG
PRIMARY EXAMINER